

Accessorius peruensis gen. et sp. n. (Monogenea: Gyrodactylidae) from *Lebiasina bimaculata* (Characidae) in Peru

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ABSTRACT: *Accessorius peruensis* gen. et sp. n. (Gyrodactylidae: Polyclithrinae) is described from *Lebiasina bimaculata* (Characidae) in the Chicama River of Peru. *Accessorius* is identified by having 2 anterolateral, tubular-shaped accessory sclerites lying beside the hamulus root. The haptor is rectangular in shape, with marginal hooks I–III located in 2 anterolateral groups ahead of hooks IV–VIII. The penis is bulbous and armed with 1 large hooked spine and a single row of small spines. *Accessorius* is placed tentatively in the Polyclithrinae Rogers, 1967, because of its similarity to *Polyclithrum* Rogers, 1967, and *Swingleus* Rogers, 1969. *Accessorius* is the fifth gyrodactylid genus known to occur on South American freshwater fishes.

KEY WORDS: *Accessorius peruensis* gen. et sp. n., Monogenea, Gyrodactylidae, *Lebiasina bimaculata*, Peru.

During a study of gyrodactylid parasites of freshwater fishes of Peru, an undescribed species within a new genus was found. It is described herein as *Accessorius peruensis* gen. et sp. n.

distributed unevenly, with I–III located anterolaterally in 2 groups set away from IV–VIII. Parasites of freshwater teleosts.

TYPE SPECIES: *Accessorius peruensis*.

Materials and Methods

Host fishes were netted in the Chicama River, Ascope Province, Peru. The parasites were collected according to the method described by Mizelle and Kritsky (1967). Fixed worms were mounted unstained in glycerine jelly. Measurements, in micrometers, of the holotype are followed in parentheses by those of the paratypes. Descriptive terminology follows Jara and Cone (1989).

Results

Accessorius gen. n.

DIAGNOSIS: Gyrodactylidae Cobbold, 1864; Polyclithrinae Rogers, 1967. Body elongate with 2 cephalic lobes. Bulbous pharynx, short esophagus, intestinal crura ending blindly. Viviparous reproduction. Bulbous penis with large terminal hook and single row of small spines. Round testis immediately posterior to ovary. One pair of hamuli. Single superficial and deep bars. Pair of tubular accessory sclerites lateral to each hamulus root. Haptor with 16 marginal hooks (8 pairs)

Accessorius peruensis sp. n. (Figs. 1–7)

DESCRIPTION (12 specimens measured): Flattened specimen 560 (472–640) long, 108 (80–144) wide at midbody. Pharynx 27 (26–41) long, 38 (33–40) wide. Penis 17 (16–23) in diameter with a large spine and a single row of 5 small spines. Hamuli 120 (109–121) long; root 35 (24–40), shaft 91 (86–97), point 31 (25–37). Tubular accessory sclerite 24 (20–25) in outer diameter and 50 (48–52) long. Ventral bar 13 (10–15) long, 35 (31–36) wide, with anterolateral processes 38 (30–51) long. Ventral bar membrane 71 (52–71) long. Dorsal bar 23 (18–26) long. Marginal hook 40 (32–41) long. Sickle 5 (4–6) long, 4 (3–4) wide proximally, 4 (4) wide distally. Handle 35 (32–36) long, with a terminal swelling and distinct ligament. Filament 17 (16–17)

HOST: *Lebiasina bimaculata* Cuvier and Valenciennes, 1846 (Characidae).

LOCALITY: Chicama River, Peru.

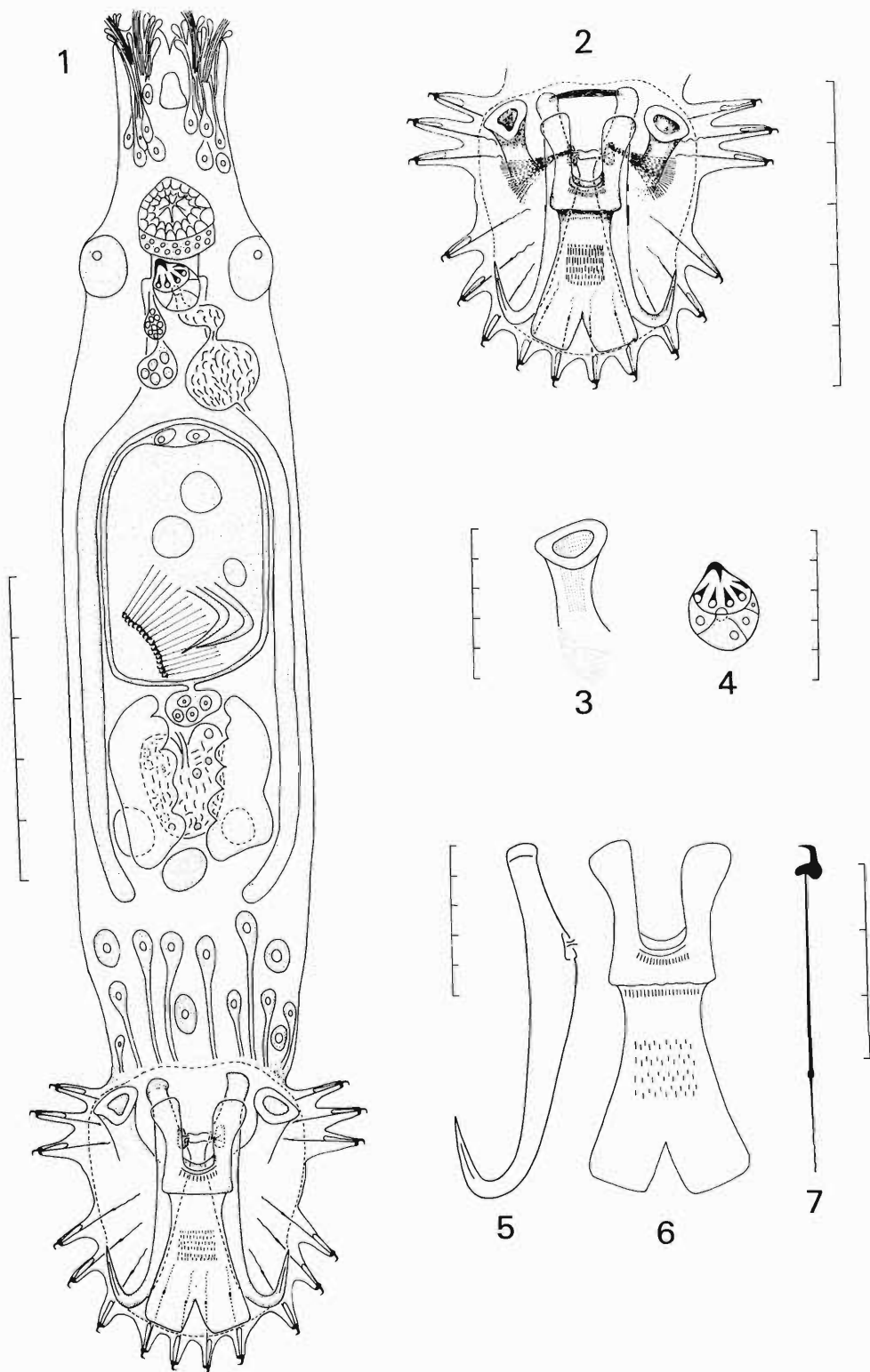
SITE OF INFECTION: Body washings.

HOLOTYPE: USNM Helm. Coll. Slide 81438.

PARATYPE: USNM Helm. Coll. Slide 81439.

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Figures 1–7. *Accessorius peruensis*. 1. Whole mount in ventral view. Scale bar divisions 30 μ m. 2. Ventral view of the haptor. Scale bar divisions 30 μ m. 3. Accessory sclerite. Scale bar divisions 10 μ m. 4. Penis. Scale bar divisions 10 μ m. 5, 6. Ventral bar and hamulus. Scale bar divisions 10 μ m. 7. Marginal hook. Scale bar divisions 10 μ m.



Discussion

There are 19 genera and 375 species within the Gyrodactylidea recognized to date. They are found worldwide on freshwater and marine fishes. *Accessorius peruensis* is the tenth species to be described from South America. Previous reports include 5 species of *Gyrodactylus* Nordmann, 1832, and single species of *Scleroductus* Jara and Cone, 1989, *Oogyrodactylus* Harris, 1983, *Phanerothecium* Kritsky and Thatcher, 1977, and *Paragyrodactyloides* (Szidat, 1973), that parasitize as a group a characid, a poeciliid, and 4 siluriform fishes (Szidat, 1973; Kritsky and Thatcher, 1977; Harris, 1983; Jara and Cone, 1989; Ligou, Jara, and Cone, unpubl.). Given the apparently high host specificity of the gyrodactylids and the vast number of fishes in South America, we suspect a great number of gyrodactylideans from fishes of the continent is yet to be discovered.

Accessorius resembles *Polyclithrum* Rogers, 1967, and *Swingleus* Rogers, 1969, parasites of fundulid and mugilid fishes in the southeastern United States. *Polyclithrum* has 3 pairs of accessory bars, no peduncular bar, and marginal hooks I–IV grouped anteriorly. *Swingleus* has a peduncular bar, a pair of large winglike accessory sclerites, and hooks I–III grouped anteriorly. Rogers (1967) established the family Polyclithrinae on the basis of the species having the marginal hooks grouped anterolaterally on the margin of the haptor. However, Rogers (1969) then questioned the validity of the family after describing *Swingleus* with a peduncular bar similar to that present in *G. prolongis* Hargis, 1955. Kritsky and Thatcher (1977) removed *G. prolongis* and other gyrodactylids with peduncular bars from *Gyrodactylus* and placed the species into a new genus, *Fundulotrema* Kritsky and Thatcher, 1977. Cone and Odense (1988) recently redescribed *Fundulotrema* and revealed that, in all known species of the genus, marginal hooks I–III are grouped anteriorly on the haptor. We ten-

tatively place *Accessorius* in the family Polyclithrinae because of the anterolateral grouping of the marginal hooks. *Fundulotrema* likely belongs in the family as well, but a final decision on these rearrangements awaits a phylogenetic analysis of the group.

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